

INVASIVE SPECIES CONTROL PROJECTS (R1 SMALL GRANTS) CY 2014 FINAL REPORT

Project Title: Snively Basin Rye Field Rehabilitation – Outlier Targeting

Station: Hanford Reach National Monument (Mid-Columbia River NWR Complex)

Contact Person: Kevin Goldie

Project Description: The Snively Basin area of the Arid Lands Ecology Reserve within the Hanford Reach National Monument was historically used to farm cereal rye (*Secale cereale*), among other dryland grains. The rye had been self-sustaining within the historic farm fields and had developed and maintained a near monoculture. Repeated catastrophic wildfires in 2000 and 2007 had sufficiently destabilized the surrounding habitats that the rye had been able to escape and expand into these native habitats. As part of a larger response plan the Service had begun efforts to eradicate the cereal rye from Snively Basin and to establish native grassland and competitive shrub steppe components. R1 ISCP Small Grants were received in both 2012 and 2013 to continue these efforts, to great success. The project as described for the FY 2014 grant was to continue the reclamation efforts by targeting outlier infestations of cereal, to prepare these areas for additional rehabilitation treatments, and to prevent the invasion of selected invasive broadleaves (e.g., diffuse knapweed (*Centaurea diffusa*)).

Invasive Species Targeted: Cereal rye (*Secale cereale*), Diffuse knapweed (*Centaurea diffusa*)

Project Completion Date or Estimated Completion Date: 04-Oct-2014

Project Results: The outlier rye infestations were treated with Aqua Neat (glyphosate; EPA Reg # 228-365) in early May, using an ATV-mounted wipe application system. A warmer than normal spring resulted in the rye growing and maturing much faster than normal, narrowing the window for application and treatment efficacy. Despite this we appeared to have good control on the treated rye. No viable seed was found on standing rye stalks. Some sprout has been found this fall/winter, but it is greatly reduced from any previous year. The main fields, treated in part under past R1 ISCP Small Grants, are showing good native survival and production. Propagation from seeded species and establishment and propagation of propagules has been found in all areas of the Basin.

Last year's efforts at broadleaf control worked very well. No rush skeletonweed was found in Snively Basin and only a few diffuse knapweed rosettes were encountered. These were manually removed as they were found.

An ATV tow-behind mower deck was purchased to remove and break up the vegetative detritus in the outlier areas ahead of application of native seed. Native seed was purchased under station funds for this initial cultural control treatment. This work is scheduled to be performed this winter, after completion of cultural reviews (the original RCRC's did not cover mowing of the outlier areas).

Number of Acres Treated: ~23 acres

Number of Acres Inventoried and/or Mapped: ~530

Number of Acres Restored: unk

Total Grant Amount: \$12,200

Breakdown of Expenditures*:

Category	Total \$ Spent	% of Total Grant
Equipment/Supplies	\$3,900	31.9%
Chemical	\$520	4.3%
Biocontrol Agents	---	---
Travel	\$300	2.5%
Biotech/Contractor Salary	\$7,480	61.3%
Restoration Materials	---	---
Other (Describe)	---	---
TOTAL	\$12,200	100%

** estimated*